

Applic. No.: 10/667,720
Amdt. Dated May 15, 2006
Reply to Office action of February 22, 2006

REMARKS/ARGUMENTS

Reconsideration of the application is requested.

Claims 1-9 remain in the application. Claims 1 and 7-9 have been amended.

In item 2 on page 2 of the above-mentioned Office action, claim 1 has been rejected as being anticipated by Komura et al. (US 6,216,232 B1) under 35 U.S.C. § 102(e).

In item 5 on page 3 of the above-mentioned Office action, claims 1-9 has been rejected as being anticipated by Douglas et al. (US 6,609,193 B1) under 35 U.S.C. § 102(e).

As will be explained below, it is believed that the claims were patentable over the cited art in their original form and the claims have, therefore, not been amended to overcome the references. However, the language of claim 1 has been modified in an effort to even more clearly define the invention of the instant application. Support for the change is found on page 11, line 4 of the specification.

Before discussing the prior art in detail, it is believed that a brief review of the invention as claimed, would be helpful.

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Claim 1 calls for, inter alia:

said program-controlled unit configured for executing pipeline instructions instructing said program-controlled unit to stop an individual one of said plurality of pipeline stages, more than one of said plurality of pipeline stages, or all of said plurality of pipeline stages; and
the pipeline instructions stipulating which particular one of said plurality of pipeline stages or which particular ones of said plurality of pipeline stages should be stopped.

Komura et al. disclose a data processing system and method capable of halting supply of clock signal without delay. Komura et al. differ from the invention of the instant application in that in Komura et al. the blocks such as the CPU 11, memory 12, peripheral equipments 3 and 4 may halt their operations due to the clock stop signal generated by the identity decision block 13 (see column 6, lines 55-60), whereas in the invention of the instant application the pipeline stage or stages are stopped by the executing the pipeline instructions. Unlike the identity decision block 13 of Komura et al., which decides whether or not the address on the address bus agrees with the self-address of the identity decision block and outputs the clock stop signal if they agree, there is no decision making procedure in the pipeline instructions according to the invention of the instant application. The pipeline instructions stipulate which

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particular one of the plurality of pipeline stages or which particular ones of the plurality of pipeline stages should be stopped from the beginning without a decision making process during the execution. This eliminates the need to have to create conditions for which one pipeline stage, a plurality of pipeline stages, or all pipeline stages are stopped (see the last paragraph on page 6 and the third paragraph on page 10 of the specification).

Douglas et al. disclose a multithread pipelined instruction decoder to clock, clear, and stall an instruction decode pipeline of a multi-threaded machine to maximize performance and minimize power. A shadow pipeline shadows the instruction decode pipeline maintaining a thread identification and instruction-valid bits for each pipestage of the instruction decoder. The thread-id and valid bits are used to control the clear, clock, and stall of each pipestage of the instruction decoder. Similar to Komura et al., Douglas et al. also make decision as to whether or not to stop the pipe stage or pipe stages during execution upon certain conditions. In contrast, there is no decision making procedure in the pipeline instructions according to the invention of the instant application. The pipeline instructions stipulate which particular one of the plurality of pipeline stages or which particular ones of the plurality of pipeline stages should be

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stopped from the beginning without a decision making process during the execution. This eliminates the need to have to create conditions for which one pipeline stage, a plurality of pipeline stages, or all pipeline stages are stopped (see the last paragraph on page 6 and the third paragraph on page 10 of the specification).

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 1. Claim 1 is, therefore, believed to be patentable over the art and since all of the dependent claims are ultimately dependent on claim 1, they are believed to be patentable as well.

In view of the foregoing, reconsideration and allowance of claims 1-9 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate a telephone call so that, if possible, patentable language can be worked out.

If an extension of time for this paper is required, petition for extension is herewith made. Please charge any fees which might be due with respect to 37 CFR Sections 1.16 and 1.17 to

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the Deposit Account of Lerner Greenberg Stemer LLP, No. 12-
1099.

Respectfully submitted,

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May 15, 2006

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